

Service-Instructions

DELMONICO 1091-1221-981-2001

(22 512)

I. Technical Data:

- Supply voltage: Only for 117 volts AC/60 cs.
Tube complement: ECC 85(6AQ8), ECH 81(6AJ8), EF 89(6DA6), EABC 80(6AK8), EL 84(6BQ5),
ECL 86(6GW8), EAM 86 (6GX8).
selenium rectifier B 250 C 75.
Fuse: 1.6 amps.
Dial lamps: 2 each 7 volts/0.3 amps.

II. Switch the set to push-pull operation (STEREO button released)

III. Dial Pointer Adjustment:

Tune AM and FM drive to stop at the low frequency end and set both pointers to the corresponding reference marks on the dial.

IV. Preparations for Alignment:

1. Set controls for full volume, full basses and full trebles with tonality button released.
2. Connect outputmeter reading 1.5 volts to terminals for ext. speaker.
3. Leave ferrite antenna inoperative.

V. Alignment of IF transformers 472 kc:

Normally no adjustments are required as the circuits will hardly be detuned by themselves. However, if necessary adjust cores of IF transformer for max. deflection.

VI. For alignment of IF rejector circuit, SW and MW ranges see IX Alignment Chart

VII. Alignment of IF transformer 10.7 mc:

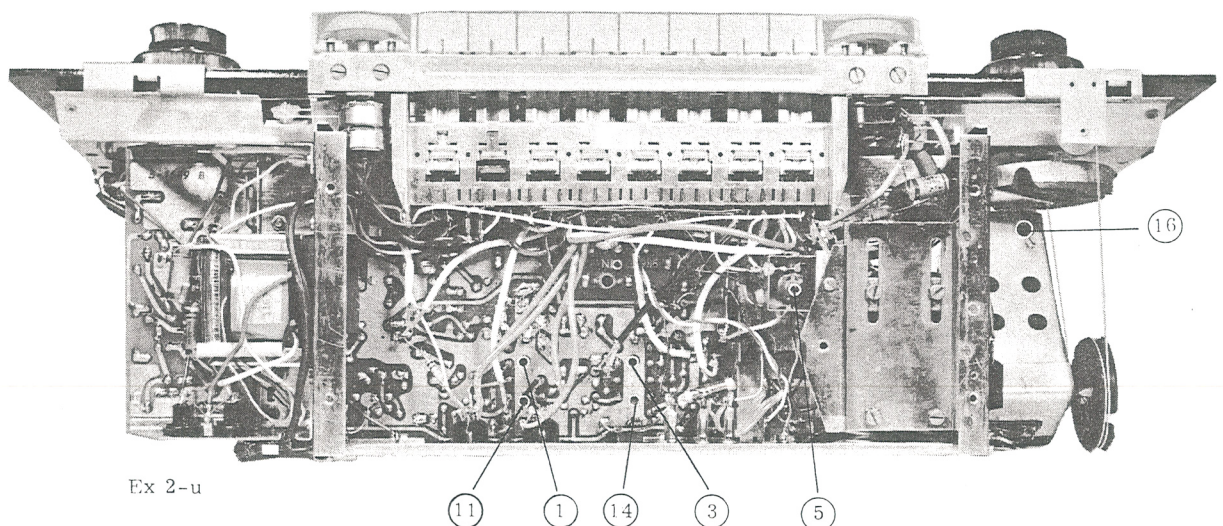
Set signal generator to 10.7 mc without modulation and maintain a 2 volts DC output of ratio detector during the alignment procedure.

Align according to IX Alignment Chart to ensure optimum symmetry of the IF response curve.

Attenuations should be made by a capacitor of 0.005 mf in series with a resistor of 5000 ohms.

VIII. Alignment of VHF part:

1. Tune receiver to 94 mc.
Apply an unmodulated signal of 94 mc and adjust capacitors of oscillator (17) intermediate (18) and radio frequency circuit (19) for max. deflection.
2. For neutralizing disconnect the lead to point 2 of VHF part temporarily. Neutralization is accomplished by alternate adjustments at points 18 and 20 until no better results may be obtained.
Adjust at point 20 for min. deflection with minus 20 volts DC applied to point 2 of VHF part and adjust at point 18 for max. deflection without the DC voltage applied.
Secure cores with wax after completing neutralization.



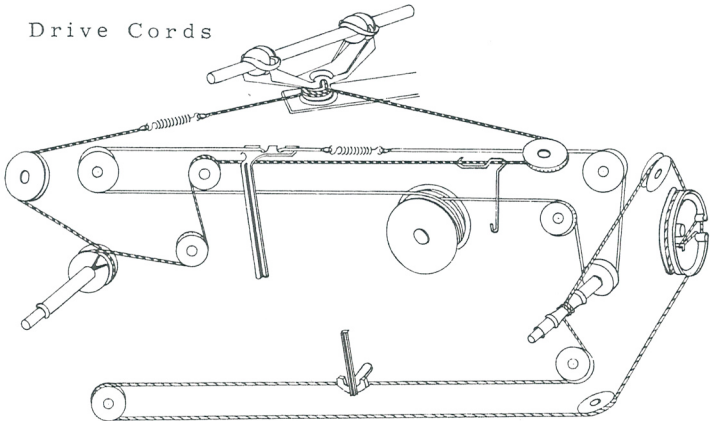
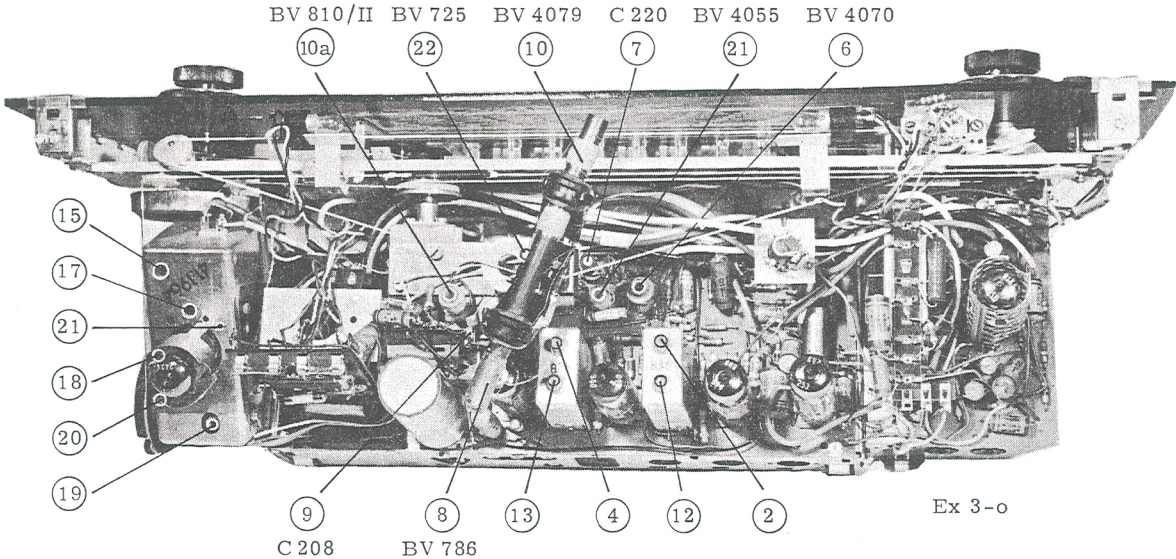
Ex 2-u

BV 4050

IX. Alignment Chart

	Sig. Gen. Connection	Modulation	Range Button	Frequency		Alignment Points	Location	Adjust to	Measurement according to
				Sig. Gen.	Receiver				
AM	through artif. ant. to ant. and ground terminals	30 p.c.	MW	472 kc	560 kc	core 1 in BV 4087 core 2 in BV 4087 core 3 in BV 835 core 4 in BV 835	on bottom on top on bottom on top	Maximum	I
				472 kc	560 kc	core 5 in BV 4050	on bottom	Minimum	
				520 kc	520 kc	core 6 in BV 4070	on top	Maximum	II I II I Ia
				1600 kc	1600 kc	capacitor 7 (C 220)	on top		
				560 kc	560 kc	coil 8 in BV 786	on top		
				1600 kc	1600 kc	capacitor 9 (C 208)	on top		
			LW	200 kc	200 kc	coil 10 in BV 4079	on top		
				200 kc	200 kc	core 10a in BV 810/II	on top		
			SW	6 mc	6 mc	core 21 in BV 4055	on top		
				7 mc	7 mc	core 22 in BV 725	on top		
FM	through 0.005 mF to grid 1 of ECH 81	no mod.	FM	10.7 mc	99 mc	core 11 in BV 4087	on bottom	3 turns to the left	III
						grid circuit EF 89	G1 EF 89	attenuate	
						core 12 in BV 4087	on top	Maximum	
						core 14 in BV 835	on bottom	Maximum	
						grid circuit EF 89	G1 EF 89	remove atten.	
						plate circuit ECH 81	A(Hex)ECH 81	attenuate	
						plate circuit EF 89	A EF 89	attenuate	
						core 13 in BV 835	on top	Maximum	
						plate circuit ECH 81	A(Hex)ECH 81	remove atten.	IV
						plate circuit EF 89	A EF 89	remove atten.	
FM	radiated sig. on tube ECC85 (ungrounded shield)	no mod.	FM	10.7 mc	99 mc	core 15 VHF part	on top	3 turns to the left	III
						core 16 VHF part	on bottom	Maximum	
FM	VHF ant. terminals	no mod.	FM	105 mc	105 mc	capacitor 17	on top	Maximum	
				99 mc	99 mc	capacitor 18	on top		
				99 mc	99 mc	capacitor 20	on top	Minimum	V
				99 mc	99 mc	core 19	on top	Maximum	III
				98 mc	98 mc	core 21	on top		

- Measurements:
- I. AC voltmeter reading 1.5 volts across terminals for ext. speaker.
 - Ia. Idem and bandsread pointer set to zero when aligning SW range.
 - II. As under I and positioning the coil with ferrite antenna operative.
 - III. VTVM between joint of C 406/R 406 and ground.
 - IV. 2 resistors of 100 000 ohms each in series between joint of C 406/R 406 and ground. VTVM between junction of resistors and joint R 403/C 402.
 - V. As under III with abt. minus 20 volts DC applied to point 2 of VHF part and increased sig. gen. output.



Pos	Artikel	Beschreibung	Bauvorschrift	Hollerith Nummer	ZeichnungsNr	Brutto	Netto
		<u>Z u b e h ö r</u>					
	Drehknopf	10 Ø Kubbier Nr. 14250 Typ 131 Farbe 1	118	3030 134	5-9020	-,80	
	Drehknopf	6 Ø Kubbier Nr. 14240 Typ 131 Farbe 1	118	3030 133	5-9019	-,75	
	Drehknopf/Stereo-Balance	Pekalit Nr. 12900 Typ 31 Farbe V 852		3030 135	5-9018	-,65	
	Ritzel	für Höhen-u. Baßregler		4571 017	5-8817	-,25	
	Steckerbuchse	Mat 30 S Hirschmann		2380 027		-,40	
	Steckerbuchse	Mat 50 S Hirschmann		2380 034		-,50	
		<u>Skala und Antrieb</u>					
	Skala		APB - 00	6550 110	Sk 0-313	4,65	
	AM-Zeiger			3570 027	4-4997	-,15	
	UKW-Zeiger			3570 010	4-2447	-,15	
	FA-Zeiger			3570 026	5-8599	-,05	
	Seilrolle	12/10		4035 028	5-7127	-,10	
	Seilrolle	18,5/15		4035 031	5-8150	-,10	
	Seilscheibe	AM		3005 021	4-4476	-,80	
	Skalenschnur	Fiberglas MC 11 Hausherr, p. m.		3105 004	6-62301	-,25m	
	Zugfeder	für AM/FM-Antrieb		4025 130	5-8296	-,05	
	Seilscheibe	FM		4025 049	5-3336	-,05	
				3005 022	4-4482	-,90	
	Anzeigoplättchen			3312 002	5-8858	-,05	
	Zugfeder	für UKW-Antrieb		4025 012	5-5359	-,03	
	Zugfeder	FA-Antrieb		4025 096	5-7855	-,05	
	Skalenhalter				5-8270	-,05	

Pos	Artikel	Beschreibung	Bauvorschrift	Hollerith Nummer	ZeichnungsNr	Brutto	Netto
		<u>HF- und Mischteil</u>					
	UKW-Mischteil	m.Rö.		2180 004	4-4244	31,20	
	Antennenplatte	gen.			4-4537	-,55	
	Drucktaster	ungeschaltet (Petrick)		2200 108	2-1028	18,90	
	Drucktaster	kompl.			22500,3	25,50	
	Ferritantenne	kompl.	BV 4054			6,50	
	Ferrispule	MW	BV 786			-,40	
	Ferrispule	LW	BV 720			-,30	
	UKW-Antennendrossel		BV 652			-,30	
	Sperrkreis	472 kHz (ZF-Sperrkreis)	BV 4050			2,10	
	Vorkreisspule	für Kurzwelle	BV 725			-,70	
	Vorkreisspule	für Langwelle	BV 810/II			1,-	
	Oszillatorspule	für Kurzwelle	BV 4055			-,65	
	Oszillatorspule	für Mittelwelle	BV 4070			-,75	
C 217	Drehkondensator	AM, Dau 207 Gi 5,66		1700 025	3-1576	7,45	
		<u>AM-FM-ZF Verst. u. Dem.</u>					
	ZF-Bandfilter		BV 835			4,80	
	Ratio-Filter		BV 4087			6,20	
		<u>NF-Teil</u>					
	Ausgangstrafo		BV 1163/II			5,75	
	Ausgangstrafo		BV 1163/III			5,75	
	Stereo-Platine	gedruckt		3852 043	3-1689	1,50	
	ZF-NF-Platine			3852 045	2-985	3,75	
	" " "	kompl. geschaltet			22500,22	55,90	
	Röhrenfassung	B 8.700.49 Valvo		2360 027		-,40	

[illegible]

[illegible]

Type 22310, 22311, 22312, 22330, 22405, 22323,
Type 22506, 22510, 22511, 22512, 22513, 22514, 22515, 22516, 22520, 22530

Bestückungsseite
Component Side - Côté Composants

AD 3-1055/2

R 202	1 M			- not used	C 207	56	C 416	4700
R 205	2,2 M			- jumpered	C 209	2800	C 419	330
R 206	2,2 M	R 410	390 * entfällt • überbrückt	- non utilisé	C 210	100	C 501	0,022 µ
R 207	100			- pontage	C 213	0,047 µ	C 503	0,1 µ
R 208	27 k	R 411	10 M		C 218	4700	C 504	0,1 µ • 0,22 µ
R 209	47 k, 1 W	R 412	1 M		C 220	3..30	C 505	3300
R 210	33 k, 1 W	R 414	220 k		C 221	15	C 508	4700
R 211	1,8 k	R 501	100 k		C 222	470	C 509	50 µ • 100 µ
R 301	180 k	R 502	820 k		C 225	470	C 510	0,1 µ
R 302	2,2 M	R 503	100 k		C 301	95	C 219	39
R 303	1,8 k				C 302	2200	C 226	4700
R 306	82 k	R 505	1 k		C 401	330	C 229	470
R 307	1,8 k	R 506	1 k		C 402	3300 * 39	C 308	2200
R 401	270 k	R 508	390		C 406	2 µ	C 309	16
R 402	100 k	R 511	1 k, 2 W • 3,3 k		C 409	0,01 µ		
R 405	15 M				C 410	0,033 µ	* entfällt -	not used
R 406	39 k	R 512	200 • entfällt	- not used				non utilisé
R 407	4,7 M			- non utilisé	C 414	0,022 µ		
R 408	3,9 k	R 513	220		C 415	0,022 µ		
		R 519	12 k					

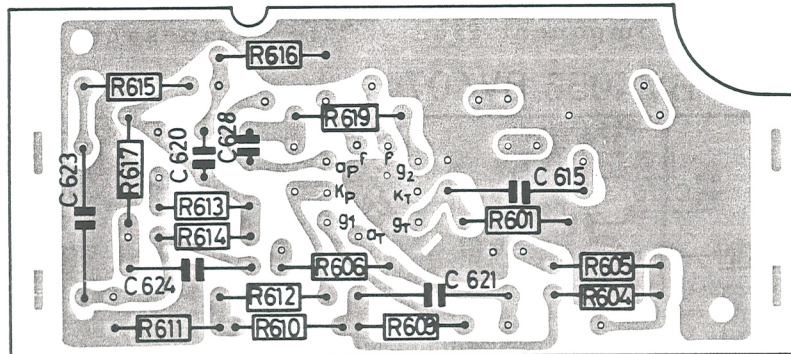
- Änderungen bei dem Gerät 22506
Modifications for model 22506
Modifications pour modèle 22506

PLATINE STEREO
STEREO BOARD
3-1689

Nur für die Geräte-Typen: } 22506, 22510, 22511, 22512, 22514, 22515, 22516,
Only for models: } 22513, 22520 und 22530
Seulement pour modèles: }

Bestückungsseite
Component Side - Côté Composants

ECL 86



AD 4-1204

R 601 10 M
R 604 2,2 M
R 605 2 M
R 606 220 k
R 609 100 k
R 610 820 k
R 611 47
R 612 150

R 613 1 k
R 614 1 k
R 615 470
R 616 390
R 617 12 k
R 619 220

C 615 6800
C 620 0,1 μ
C 621 0,022 μ
C 623 0,015 μ
* C 624 0,22 μ
C 628 3300

* bei Gerät 22520 u. 22530 C 624 0,1 μ
for model 22520 u. 22530 C 624 0,1 μ
pour modèle 22520 u. 22530 C 624 0,1 μ

